L4 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:817915 CAPLUS Full-text

DN 139:322266

TI Peptide conjugates comprising heat shock protein-binding peptide and antigenic peptide for treating infectious and malignant diseases

IN Rothman, James E.; Mayhew, Mark; Hoe, Mee H.; Houghton, Alan; Hartl, Ulrich; Ouerfelli, Ouathek; Moroi, Yoichi

PA USA

SO U.S. Pat. Appl. Publ., 62 pp. CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	ENT NO. KIND DAT		APPLICATION NO.	DATE
		<del></del>			
PI	US 2003194409	A1	20031016	US 2002-53498	20020117
PRAI	US 2002-53498		20020117		20020117

The present invention relates (i) to conjugate peptides engineered to noncovalently bind to heat shock proteins; (ii) to compns. comprising such conjugate peptides, optionally bound to heat shock protein; and (iii) to methods of using such compns. to induce an immune response in a subject in need of such treatment. It is based, at least in part, on the discovery of tethering mols. which may be used to non-covalently link antigenic peptides to heat shock proteins. The present invention also provides for methods of identifying addnl. tethers which may be comprised, together with antigenic sequences, in conjugate peptides.

IT 612480-96-3P

RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic

preparation); THU (Therapeutic use); BIOL (Biological study); PREP
(Preparation); USES (Uses)

(peptide conjugates comprising heat shock protein-binding peptide and antigenic peptide for treating infectious and malignant diseases)

RN 612480-96-3 CAPLUS

CN Geldanamycin, 17-demethoxy-17-[[6-[[(1,1-

dimethylethoxy) carbonyl]amino]hex

yl]amino]-15-methoxy-11-O-methyl-, (15R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as described by E or Z.

PAGE 1-A

# IT 94513-95-8, 17-Allylaminoherbimycin A

RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(peptide conjugates comprising heat shock protein-binding peptide and antigenic peptide for treating infectious and malignant diseases)

RN 94513-95-8 CAPLUS

CN Geldanamycin, 17-demethoxy-15-methoxy-11-O-methyl-17-(2-propenylamino)-, (15R)- (9CI) (CA INDEX NAME)

L4 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:380021 CAPLUS Full-text

DN 135:174863

TI Synergistic inhibition of the glucocorticoid receptor by radicicol and benzoquinone ansamycins

AU Rosenhagen, Marcus C.; Young, Jason C.; Wochnik, Gabriela M.; Herr, Alexandra S.; Schmidt, Ulrike; Hartl, F. Ulrich; Holsboer, Florian; Rein,

Theo

CS Max Planck Institute of Psychiatry, Munich, D-80804, Germany

SO Biological Chemistry (2001), 382(3), 499-504 CODEN: BICHF3; ISSN: 1431-6730

PB Walter de Gruyter GmbH & Co. KG

DT Journal

LA English

Radicicol (RAD) and the benzoquinone ansamycin geldanamycin (GA) are potential anticancer drugs known to inhibit heat shock protein 90 (hsp90) and, therefore, the activation of proteins dependent on its function such as proto-oncogenic kinases and nuclear receptors. Using the glucocorticoid receptor (GR) as a model system for hsp90 we analyzed the effects of RAD and various benzoquinone ansamycins. All compds. efficiently abolished GR-dependent transactivation. Surprisingly, whenever one of the ansamycins was applied in combination with RAD, synergistic inhibition of GR-dependent transcription and of hormone binding of GR was observed In contrast, combination of two ansamycins showed no synergy. These findings suggest synergism within the hsp90 dimer and may open new ways to explore hsp90 as therapeutic target.

IT 94513-95-8, 17-Allylaminoherbimycin A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES

(Uses)

(synergistic inhibition of glucocorticoid receptor by radicicol and benzoquinone ansamycins)

RN 94513-95-8 CAPLUS

CN Geldanamycin, 17-demethoxy-15-methoxy-11-0-methyl-17-(2-propenylamino)-, (15R)- (9CI) (CA INDEX NAME)

$$H_2C$$
  $=$   $CH_2-NH$   $=$   $OMe$   $=$ 

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 3 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
AN
     2000:742091 CAPLUS Full-text
DN
     133:305587
     Methods and compositions using bifunctional hsp-binding derivatives for
     degradation and/or inhibition of HER-family tyrosine kinases and
treatment
     of cancer
ΙN
     Rosen, Neal; Kuduk, Scott D.; Danishefsky, Samuel J.; Zheng, Furzhong
     Sepp-Lorenzino, Laura; Ouerfelli, Ouathek
PA
     Sloan-Kettering Institute for Cancer Research, USA
     PCT Int. Appl., 21 pp.
SO
     CODEN: PIXXD2
DΨ
     Patent
LΑ
     English
FAN.CNT 1
     PATENT NO.
                                          APPLICATION NO.
                       KIND
                                DATE
                                                                  DATE
                        ____
                                -----
PΙ
     WO 2000061578
                         A1
                                20001019
                                          WO 2000-US9512
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
             CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
             ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
             LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
             SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
             ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     EP 1169319
                         A1 20020109 EP 2000-921985
                                                                   20000407
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     AU 769235
                         B2
                               20040122
                                           AU 2000-42235
                                                                   20000407
     US 2002045570
                                20020418
                         A1
                                           US 2001-960665
                                                                   20010921
PRAI US 1999-128593P
                         Ρ
                                19990409
     WO 2000-US9512
                         W
                               20000407
     Bifunctional mols. comprising two hsp-binding moieties which bind to
AΒ
     hsp90 in the pocket to which ansamycin antibiotics bind connected via a
     linker are effective for inducing the degradation and/or inhibition of
     HER-family tyrosine kinases. For example, a compound of two
     geldanamycin moieties joined by a four-carbon linker provides selective
     degradation of HER-family tyrosine kinases, without substantially
     affecting other kinases. These compds. can be used for treatment of
     HER-pos. cancers with reduced toxicity, since these compds. potently
     kill cancer cells but affect fewer proteins than geldanamycin. Compound
     preparation is described.
     301643-29-8P
    RL: BAC (Biological activity or effector, except adverse); BSU
(Biological
    study, unclassified); SPN (Synthetic preparation); THU (Therapeutic
use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (bifunctional hsp-binding derivative for degradation and/or
inhibition of
       HER-family tyrosine kinase and cancer treatment)
    301643-29-8 CAPLUS
RN
    Geldanamycin, 17,17'-(1,6-hexanediyldiimino)bis[17-demethoxy-,
    15-methoxy-11-0-methyl deriv., (15R)- (9CI) (CA INDEX NAME)
```

L4

Absolute stereochemistry. Double bond geometry as described by E or Z.

PAGE 1-B

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 4 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN
 AN
      1998:761909 CAPLUS Full-text
 DN
      130:24910
      Preparation of ansamycin antibiotic-targeting moiety coupled compounds
 ΤI
 for
      destruction of selected proteins
      Rosen, Neal; Danishevsky, Samuel; Ouerfelli, Ouathek; Kudak, Scott D.;
 IN
      Sepp-Lorenzino, Laura
      Sloan-Kettering Institute for Cancer Research, USA
 PA
 SO
      PCT Int. Appl., 35 pp.
      CODEN: PIXXD2
 DT
      Patent
 LΑ
      English
 FAN.CNT 1
      PATENT NO.
                         KIND
                                DATE
                                           APPLICATION NO.
                                                                   DATE
      -----
                         ____
                                            _____
                                                                   _____
 PΤ
     WO 9851702
                          A1
                                19981119
                                            WO 1998-US9805
                                                                   19980514
         W: CA, JP, US
         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE
     EP 1023315
                          A1
                                20000802
                                            EP 1998-923415
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     JP 2001525824
                          Т2
                                20011211
                                            JP 1998-549516
                                                                   19980514
     US 6670348
                          В1
                                            US 1999-403434
                                20031230
                                                                   19991020
PRAI US 1997-46451P
                          Ρ
                                19970514
     WO 1998-US9805
                          W
                                19980514
      Compds. having an ansamycin antibiotic, or other moiety which binds to
AΒ
      hsp90, coupled to a targeting moiety which binds specifically to a
      protein, receptor or marker can provide effective targeted delivery of
      the ansamycin antibiotic leading to the degradation of proteins and
      death of the targeted cells. These compns. may have different
      specificity than the ansamycin alone, allowing for a more specific
      targeting of the therapy, and can be effective in instances where the
      ansamycin alone has no effect. Thus, these compds. provide an entirely
     new class of targeted chemotherapy agents with application, depending on
      the nature of the targeting moiety, to treatment of a variety of
     different forms of cancer. Such agents can further be used to promote
     selective degradation of proteins associated with the pathogenesis of
     other diseases, including antigens associated with autoimmune disorders
     and pathogenic proteins associated with Alzheimer's disease. Exemplary
     targeting moieties which may be employed in compds. of the invention
     include testosterone, estradiol, tamoxifen and wortmannin.
TΨ
     216063-94-4P
     RL: BAC (Biological activity or effector, except adverse); BSU
(Biological
    study, unclassified); SPN (Synthetic preparation); THU (Therapeutic
use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of coupled targeting moiety-ansamycin antibiotic
compound as
        chemotherapy agents)
RN
    216063-94-4 CAPLUS
    Geldanamycin, 17-demethoxy-17-[[3-[(16\alpha, 17\beta)-3, 17-
CN
    dihydroxyestra-1,3,5(10)-trien-16-yl]propyl]amino]-15-methoxy-11-0-
methyl-
    , (15R) - (9CI) (CA INDEX NAME)
```

L4

Absolute stereochemistry. Double bond geometry as described by E or Z.

PAGE 1-A

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 5 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN L4

1995:440511 CAPLUS Full-text ΑN

122:255539 DN

Possible functional groups responsible for inhibition of in vivo TТ angiogenesis by herbimycin A

Oikawa, Tsutomu; Ogasawara, Hiroyuki; Sano, Hiroshi; Shibata, Kiyoshi; ΑU Omura, Satoshi

Department of Cancer Therapeutics, Tokyo Metropolitan Institute of CS Medical

Science, Tokyo, 113, Japan

Biological & Pharmaceutical Bulletin (1994), 17(10), 1430-2 SO CODEN: BPBLEO; ISSN: 0918-6158

Pharmaceutical Society of Japan PΒ

Journal DT

LΑ English

Six herbimycin A (HBM) derivs. were examined for their anti-angiogenic AB effects in a bioassay system involving chorioallantoic membranes (CAMs) of growing chick embryos on the basis of our previous observation of HBM is a potent angiogenesis inhibitor. 17-Cyclopropylamino-HBM dosedependently inhibited embryonic angiogenesis. The ID50 value was 0.1  $\mu g$ (160 pmol) per egg and thereby lower than that of the parent compound HBM (ID50 = 0.15  $\mu$ g (260 pmol) per egg). In contrast, 19-dimethylamino-, N-acetyl-, 2,3,4,5-tetrahydro- and 7-decarbamoyl-HBM at doses of 0.01-10  $\mu$ g/egg failed to affect angiogenesis in CAMs. These results strongly suggest as follows: (1) C-19 position, amino group between positions C-1 and C-20 and carbamoyl group in C-7 are essential for the antiangiogenic action of HBM; (2) HBM needs certain fixed conformation for expression of angiogenesis inhibition; (3) it is expected that the modification of C-17 with a suitable functional group results in increased anti-angiogenic potency of HBM; i.e., a more potent angiogenesis inhibitor than the parent compound would be developed.

94513-97-0, 17-Cyclopropylaminoherbimycin A ITRL: BAC (Biological activity or effector, except adverse); BSU

(Biological

study, unclassified); BIOL (Biological study)

(possible functional groups responsible for inhibition of in vivo angiogenesis by herbimycin A)

94513-97-0 CAPLUS RN

Geldanamycin, 17-(cyclopropylamino)-17-demethoxy-15-methoxy-11-0-methyl-CN

(15R) - (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1994:524702 CAPLUS Full-text

DN 121:124702

TI Effects of herbimycin A and its derivatives on growth and differentiation

of Ph1-positive acute lymphoid leukemia cell lines

AU Sato, Seitetsu; Honma, Yoshio; Hozumi, Motoo; Hayashi, Yasuhide; Matsuo, Yoshinobu; Shibata, Kiyoshi; Omura, Satoshi; Hino, Ken-Ichiro; Tomoyasu, Shigeru; Tsuruoka, Nobuyoshi

CS Dep. Chemother., Saitama Cancer Cent. Res. Inst., Ina, 362, Japan

SO Leukemia Research (1994), 18(3), 221-8 CODEN: LEREDD; ISSN: 0145-2126

DT Journal

LA English

AΒ The mol. basis of the Philadelphia chromosome (Ph1) is a structurally altered c-abl (bcr/abl) gene which encodes an abnormally large protein with protein tyrosine kinase activity. Herbimycin A, an inhibitor of tyrosine kinase, preferentially inhibited the growth of Ph1-pos. acute lymphoid leukemia (ALL) cell lines, as well as Ph1-pos. chronic myeloid leukemia (CML) cell lines. Although noncytotoxic concns. of herbimycin A induced erythroid differentiation of two CML-derived cell lines, K562 and KU812, in a previous study, the differentiation-inducing effect of herbimycin A on Ph1-pos. ALL cell lines was less strong. Herbimycin A enhanced some differentiation-associated properties of one Ph1-pos. ALL cell line, L2, but the effect of herbimycin A on the other Phl-pos. ALL cell lines was cytotoxic rather than cytostatic (differentiationinducing). Several derivs. of herbimycin A were synthesized and their effects on the cell proliferation of Ph1-pos. CML and ALL cell lines were examined The sensitivities of the Ph1-pos. cell lines to herbimycin A derivs. were different from the data on the rat kidney cell line infected with Rous sarcoma virus (v-src) derived from a previous study, suggesting bcr/abl kinase may differ in sensitivity from other tyrosine kinases. Moreover, the sensitivities of the ALL cell lines were not the same as those of the CML cell lines. These results suggest that a specific inhibitor of bcr/abl kinase could be an effective antileukemic agent against Ph1-pos. CML or ALL.

## IT 94513-97-0

RL: BIOL (Biological study)

(Ph1-pos. leukemia cell inhibitory activity of)

RN 94513-97-0 CAPLUS

CN Geldanamycin, 17-(cyclopropylamino)-17-demethoxy-15-methoxy-11-0-methyl-,(15R)-(9CI) (CA INDEX NAME)

L4 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1992:463002 CAPLUS Full-text

DN 117:63002

TI vascularization inhibitors containing herbimycin derivatives

IN Sano, Hiroshi; Tamaoki, Tatsuya; Omura, Satoshi

PA Kyowa Hakko Kogyo K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

GI

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	JP 04046120	A2	19920217	JP 1990-152099	19900611	
PRAI	JP 1990-152099		19900611			
OS	MARPAT 117:63002					

AB Vascularization inhibitors contain herbimycin derivs. I or II (R3 = OMe, C1; R4 = OCONH2 and R5R6 = O, single bond or R4R5 = OCO2 and R6 = Br; R7 = H, cyclopropylamino; R8 = H, Br) as active ingredients. The vascularization inhibitors are useful as prophylactic or therapeutic agents for rheumatoid arthritis, diabetic retinopathy, immature infant retinopathy, senile macular degeneration, hypertrophic scar formation in wound healing, etc. I (R1R2 = single bond, R3 = OMe, R4 = OCONH2, R5R6 = O, R7 = R8 = H) (III) at 1 mg/egg completely inhibited vascularization in cholicallantoic membrane of egg. LD50 value of I or II in male mice was >200 mg/kg i.p. A solution of 200 g III in 20 L EtOH was pressure-filtered and put into vials then lyophilized to give freeze-dried composition for injection (50 mg/vial).

#### IT **94513-97-0**

RL: BIOL (Biological study)

(vascularization inhibitors containing)

Ι

RN 94513-97-0 CAPLUS

CN Geldanamycin, 17-(cyclopropylamino)-17-demethoxy-15-methoxy-11-O-methyl-,(15R)- (9CI) (CA INDEX NAME)

ANSWER 8 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN L4

1992:400423 CAPLUS Full-text AN

DN 117:423

TIEffects of herbimycin A derivatives on growth and differentiation of K562

human leukemic cells

Honma, Yoshio; Kasukabe, Takashi; Hozumi, Motoo; Shibata, Kiyoshi; ΑU Omura,

Satoshi

CS Dep. Chemotherapy, Saitama Cancer Cent. Res. Inst., Saitama, 362, Japan

SO Anticancer Research (1992), 12(1), 189-92

CODEN: ANTRD4; ISSN: 0250-7005

DTJournal

LΑ English

AB Herbimycin A, a specific tyrosine kinase inhibitor, induced erythroid differentiation of human myelogenous leukemia K562 cells with a high level of bcr/abl tyrosine kinase. Several derivs. of herbimycin A were synthesized and their effects on cell proliferation and differentiation of K562 cells were examined Of the compds. tested, 19allylaminoherbimycin A was the most effective in inducing the differentiation of K562 cells. The parent compound was the most potent growth inhibitor, suggesting that chemical modification of herbimycin A reduces the growth-inhibiting activity. The sensitivities of K562 cells to herbimycin derivs. were different from those of a rat kidney cell line infected with Rous sarcoma virus (v-src), suggesting that bcr/abl kinase may differ in sensitivity from other tyrosine kinases. Specific inhibitors of bcr/abl kinase could be effective antitumor agents against chronic myelogenous leukemia.

#### IT 94513-97-0

RL: BIOL (Biological study)

(tyrosine kinase and leukemia cell inhibition by)

RN 94513-97-0 CAPLUS

CN Geldanamycin, 17-(cyclopropylamino)-17-demethoxy-15-methoxy-11-0-methyl-

(15R) - (9CI) (CA INDEX NAME)

L4 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1989:231340 CAPLUS Full-text

DN 110:231340

TI Neoplasm inhibitors containing herbimycin A derivatives

IN Omura, Satoshi; Sano, Hiroshi

PA Kyowa Hakko Kogyo Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

GΙ

114001	** *					
F	PATENT NO.		DATE	APPLICATION NO.	DATE	
_						
PI J	JP 63218620	A2	19880912	JP 1987-53478	19870309	
PRAI J	JP 1987-53478		19870309			
OS N	MARPAT 110:231340					

Ι

IT 94513-97-0

RL: RCT (Reactant); RACT (Reactant or reagent)
 (neoplasm inhibitor)

RN 94513-97-0 CAPLUS

CN Geldanamycin, 17-(cyclopropylamino)-17-demethoxy-15-methoxy-11-O-methyl-, (15R)- (9CI) (CA INDEX NAME)

L4 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1988:485728 CAPLUS Full-text

DN 109:85728

TI Effect of herbimycin derivatives on src oncogene function in relation to antitumor activity

AU Uehara, Yoshimasa; Murakami, Yuko; Suzukake-Tsuchiya, Kayoko; Moriya, Yukari; Sano, Hiroshi; Shibata, Kiyoshi; Omura, Satoshi

CS Dep. Antibiot., Natl. Inst. Health, Tokyo, 141, Japan

SO Journal of Antibiotics (1988), 41(6), 831-4 CODEN: JANTAJ; ISSN: 0021-8820

DT Journal

LA English

GΙ

AB The structure-activity relations among herbimycins (herbimycin A (I), herbimycin B, and 19 derivs. of herbimycin A) were investigated with respect to the following activities: (1) reversing transformed cell morphol. to the normal one in ts/NRK cells at a permissive temperature (33°) and (2) inhibiting cell growth and macromol. syntheses under the same conditions. Furthermore, whether the transformation reversing activity of herbimycins was due to inhibition of src oncogene functions was also investigated. The results are discussed in comparison to their effects on Ehrlich ascites carcinoma in mice.

IT 94513-97-0, 17-Cyclopropylaminoherbimycin A

RL: BIOL (Biological study)

(antitumor activity and src oncogene function response to, structure in relation to)

RN 94513-97-0 CAPLUS

CN Geldanamycin, 17-(cyclopropylamino)-17-demethoxy-15-methoxy-11-0-methyl-, (15R)- (9CI) (CA INDEX NAME)

L4 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1987:188568 CAPLUS Full-text

DN 106:188568

TI Chemical modification and bioactivity of herbimycin A. II. The 17- or 19-substituted derivatives of herbimycin A

AU Shibata, Kiyoshi; Satsumabayashi, Sadayoshi

CS Nippon Dent. Univ., Tokyo, 102, Japan

SO Nippon Shika Daigaku Kiyo, Ippan Kyoiku-kei (1985), 14, 111-18 CODEN: NSDKDD; ISSN: 0385-1605

DT Journal

LA Japanese

AB Five derivs. of herbimycin A [70563-58-5], with alkylamine substitution at C-17 and C-19, were prepared, and their antitumor activities against Ehrlich tumors were compared with those of herbimycin A.

IT 94513-95-8P, 17-Allylaminoherbimycin A 94513-97-0P,

17-Cyclopropylaminoherbimycin A

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation and neoplasm-inhibiting activity of)

RN 94513-95-8 CAPLUS

(15R) - (9CI)

CN Geldanamycin, 17-demethoxy-15-methoxy-11-O-methyl-17-(2-propenylamino)-, (15R)- (9CI) (CA INDEX NAME)

RN 94513-97-0 CAPLUS
CN Geldanamycin, 17-(cyclopropylamino)-17-demethoxy-15-methoxy-11-0-methyl-

(CA INDEX NAME)

L4ANSWER 12 OF 12 CAPLUS COPYRIGHT 2004 ACS on STN

ΑN 1985:55745 CAPLUS Full-text

DN 102:55745

ΤI Chemical modification and antitumor activity of herbimycin A. 8,9-Epoxide, 7,9-cyclic carbamate and 17 or 19-amino derivatives ΑU Omura, Satoshi; Miyano, Katsuji; Nakaqawa, Akira; Sano, Hiroshi; Komiyama,

Kanki; Umezawa, Iwao; Shibata, Kiyoshi; Satsumabayashi, Sadayoshi

Sch. Pharm. Sci., Kitasato Univ., Tokyo, 108, Japan CS

Journal of Antibiotics (1984), 37(10), 1264-7 SO

CODEN: JANTAJ; ISSN: 0021-8820

DTJournal

LΑ English

GΙ

Me

ÒМе

II

The synthesis and antitumor activities of 8,9-epoxyherbimycin A (I) AΒ [94513-90-3], herbimycin A-7,9-cyclic carbamate (II) [94513-91-4], and the 17- or 19-amino substituted derivs. of herbimycin A (III), II, and III are described. When tested against Ehrlich carcinoma cells in mice, III did not possess strong antitumor activity but I, II, and some of the amino derivs. prolonged the life span of tumor-bearing mice. 19-Methylpiperazino-8,9-epoxyherbimycin A [94513-93-6] also had antitumor activity against other exptl. tumors, indicating that the introduction of a methylpiperazino group onto the 19 position of the benzoquinone nucleus results in high antitumor activity.

# 94513-95-8P 94513-97-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation and neoplasm-inhibiting activity of)

RN 94513-95-8 CAPLUS

Geldanamycin, 17-demethoxy-15-methoxy-11-0-methyl-17-(2-propenylamino)-, CN (15R) - (9CI) (CA INDEX NAME)

RN 94513-97-0 CAPLUS
CN Geldanamycin, 17-(cyclopropylamino)-17-demethoxy-15-methoxy-11-0-methyl, (15R)- (9CI) (CA INDEX NAME)

## L6 ANSWER 1 OF 1 BEILSTEIN COPYRIGHT 2004 BEILSTEIN MDL on STN

Beilstein Records (BRN):
Chemical Name (CN):
Autonom Name (AUN):

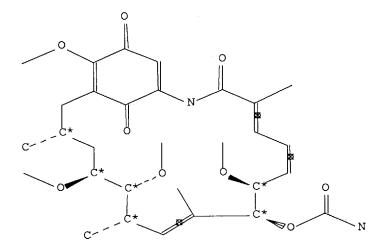
Geldanamycin

carbamic acid 8,13,14,19-tetramethoxy4,10,12,16-tetramethyl-3,20,22-trioxo-2aza-bicyclo<16.3.1>docosa-

#### 1(21),4,6,10,18-

Molec. Formula (MF):
Molecular Weight (MW):
Lawson Number (LN):
File Segment (FS):
Compound Type (CTYPE):
Constitution ID (CONSID):
Tautomer ID (TAUTID):
Entry Date (DED):
Update Date (DUPD):

pentaen-9-yl ester C30 H42 N2 O9 574.67 26251, 1762, 289 Stereo compound heterocyclic 7045706 7823670 2000/03/03 2000/03/03



## Field Availability:

Code	Name	Occurrence
		1
BRN	Beilstein Records	1
CN	Chemical Name	1
AUN	Autonomname	1
MF	Molecular Formula	1
FW	Formular Weight	1
LN	Lawson Number	3
FS	File Segment	1
CTYPE	Compound Type	1
CONSID	Constitution ID	1
TAUTID	Tautomer ID	1
ED	Entry Date	1
UPD	Update Date	1
PHARM	Pharmacological Data	1

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AN
     139:164658 MARPAT Full-text
     Preparation of ansamycins having improved pharmacological and biological
TI
     properties
     Zhang, Lin; Le Brazidec, Jean-Yves; Boehm, Marcus F.; McHugh, Sean
IN
Konrad:
     Fan, Junhua; Fritz, Lawrence C.; Burrows, Francis J.
     Conforma Therapeutics Corporation, USA
PΑ
     PCT Int. Appl., 207 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
     English
FAN.CNT 2
                     KIND DATE
                                          APPLICATION NO. DATE
     PATENT NO.
                                          _____
    WO 2003066005
                      A2
                           20030814
                                          WO 2003-US4283
                                                           20030210
PΙ
     WO 2003066005
                      A3
                           20040610
           AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
            PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
            UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD,
            RU, TJ, TM
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            ML, MR, NE, SN, TD, TG
                                          WO 2002-US39993 20021212
                     A2
                           20030619
     WO 2003050295
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             PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
            MR, NE, SN, TD, TG
PRAI US 2002-355275P
                     20020208
     US 2002-367055P 20020322
     WO 2002-US39993 20021212
     US 2001-340762P 20011212
GΙ
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ANSWER 1 OF 3 MARPAT COPYRIGHT 2004 ACS on STN

L9

- \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT \*
- AB Ansamycins of formula I [R1R2 = H2, bond; R3 = H, alkyl; R4, R5 = H, OH, alkoxy, acetoxy, aryloxy, acyloxy, etc.; R4R5 = O, NOH, alkoxyimine, etc.; R6 = H, alkyl, aryl, acyl; Y1, Y2 = H, OH, alkoxy, acetoxy, acyloxy, alkylsulfonyl, alkylamino, etc.; Y1R4 = heterocyclic or carbocyclic ring] and methods of preparing and using the same are

described. At least some of these ansamycins exhibit one or more of improved aqueous formulation ability, chemical stability, and bioavailability. Some of the derivs. described are dimers. These and others described can include one or more solubilizing groups that have expected merit in rendering the overall compds. useful as drugs and prodrugs. Thus, II was prepared from geldanamycin and 3,3'-diaminodipropylamine in 93% yield. II suppressed tumor growth of BT474 and SKOV-3 tumor models.

#### MSTR 1

G3 = NH2G4 = 45

45 G5

G5 = 50

58----G17

G11 = 61

₩<mark>\_</mark>G5

G15 = OH

G17 = alkyl < (1-30) >

MPL: claim 1

NTE: or pharmaceutically acceptable salts

NTE: also incorporates claim 18

NTE: additional ring formation also claimed

NTE: substitution is restricted

L9 ANSWER 2 OF 3 MARPAT COPYRIGHT 2004 ACS on STN

AN 132:102857 MARPAT Full-text

TI Inducement of thermotolerance with benzoquinonoid ansamycins

IN Welch, William J.; Hegde, Ramanujan

PA The Regents of the University of California, USA

SO U.S., 12 pp., Cont.-in-part of U.S. Ser. No. 432,842, abandoned. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 6015659	Α	20000118	US 1997-931772	19970916
	CA 2218523	AA	19961107	CA 1996-2218523	19960430

PRAI US 1995-432842 19950502

Thermotolerant phenotypes are developed in cells, tissues, organs and organisms by the administration of benzoquinonoid ansamycins such as herbimycin A and any of various analogs. The general stress tolerance resulting from this inducement offers benefits in a variety of ways, including rendering surgical patients more able to withstand the rigors of surgery, prolonging the shelf life of organs excised from organ donors, and prolonging the viability of tissue-cultured cells and organs. For example, mice treated with geldanamycin (50-200 mg/kg, i.p.) showed a dramatic increase in the synthesis of HSP 72 in the kidney, liver, heart, lung, skin and artery, but not in the brain. The synthesis of HSP appeared to be dependent on the dose of geldanamycin used.

#### MSTR 1

G6 = OMe G7 = 47

Q----C(0)-NH2

G8 = Me G11 = OMe G13 = OH MPL: claim 1

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 3 OF 3 MARPAT COPYRIGHT 2004 ACS on STN L9

121:99788 MARPAT Full-text ΑN

Tumoricidal activity of benzoquinonoid ansamycins against prostate ΤI cancer

and primitive neural malignancies

Whitesell, Luke; Neckers, Leonard; Trepel, Jane; Myers, Charles IN

The Government of the United States of America, The Secretary of the PADepartment of Health and Human Services, USA

PCT Int. Appl., 27 pp. SO

CODEN: PIXXD2

DTPatent

LΑ English

FAN. CNT 1

L MM .	CMI	T																
	PAT	CENT	NO.		KII	ΝD	DATE			AI	PLIC	CATIO	ои ис	Э.	DATE			
ΡI	WO	9408	578		A.		1994	0428		WC	199	93-U	S985	8	1993	1014		
	WO	9408	578		A.	3	1994	0623										
			AU,															
		RW:	AT,	BE,	CH,	DE,	, DK,	ES,	FR,								PT,	SE
	ΑU	9453	606		A.	1	1994	0509							1993			
	EP	6647				_	1995								1993			
		R:	AT,	BE,	CH,	DE.	, DK,	ES,	FR,	GB,	GR,	ΙE,	IT,	LI,	LU,	MC,	NL,	PT,
SE																		
	.TP	0.850	2488		Т.	2	1996	0319		JI	2 199	93-51	1028	5	1993	1014		

JP 08502488 T2

PRAI US 1992-961250 19921014

WO 1993-US9858 19931014

Ansamycin benzoquinones are effective for the treatment of tumors AΒ selected from the group comprising primitive neuroectodermal tumors, prostate cancer, melanoma, and metastatic Ewing's sarcoma. Herbimycin A and geldanamycin inhibited cell proliferation and survival against the primitive neuroectodermal cell line CHP-1000 and mouse fibroblast cell line NIH 3T3 in a dose-dependent fashion.

### MSTR 1

G1 = loweralkoxy

MPL: claim 8 => d 11; d his; log y L1 HAS NO ANSWERS L1 STR

Structure attributes must be viewed using STN Express query preparation.

(FILE 'REGISTRY' ENTERED AT 17:49:42 ON 20 AUG 2004)

DEL HIS Y

L1 STRUCTURE UPLOADED

L2 0 S L1

L3 5 S L1 FUL

FILE 'CAPLUS' ENTERED AT 17:50:57 ON 20 AUG 2004

L4 12 S L3

FILE 'BEILSTEIN' ENTERED AT 17:51:26 ON 20 AUG 2004

L5 1 S L1 FUL

L6 1 S L5 NOT L4

FILE 'MARPAT' ENTERED AT 17:52:01 ON 20 AUG 2004

L7 0 S L1

L8 5 S L1 FUL

L9 3 S L8 NOT L4

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	123.19	346.17
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.98	-10.38

STN INTERNATIONAL LOGOFF AT 17:52:58 ON 20 AUG 2004